

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

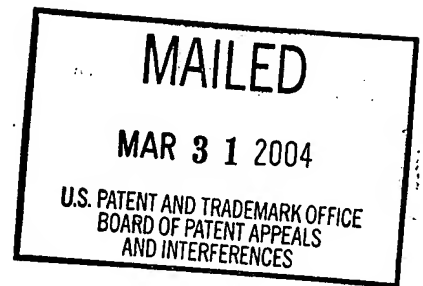
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte PATRICK C. MARKS  
and  
THOMAS S. KATRA

Appeal No. 2004-0950  
Application 10/051,003

ON BRIEF



Before PAK, JEFFREY T. SMITH, and PAWLIKOWSKI, Administrative Patent Judges.

PAK, Administrative Patent Judge.

REMAND AND ORDER FOR CLARIFICATION

Pursuant to 37 CFR § 1.196 (a) and (d) (1998), we order both the examiner and the appellants to take appropriate action consistent with the views expressed below. We return this application to the examiner's jurisdiction for purposes of properly interpreting the claims on appeal and reevaluating the examiner's Section 102 rejection based on the properly interpreted claims.

The subject matter on appeal relates to a Helmholtz resonator structure associated with a multi-speed engine with an air inlet line connected thereto. Further details of the appealed subject matter are provided in independent claims 3, 7 and 9 which are reproduced below:

Claim 3. In a system having a multi-speed engine with an air inlet line connected to said engine, a Helmholtz resonator structure comprising:

a closed chamber configured as a single dead end side branch connected to said line and defining a Helmholtz resonator continuously operatively connected to said inlet line via a restricted connection;

means for attenuating noise in a plurality of frequencies by changing the frequency response of said Helmholtz resonator responsive to changes in speed of said engine;

said means for changing the frequency response includes at least one restricted connection which is selectively connected between said chamber and said inlet line.

Claim 7. A refrigeration system having a multi-speed engine with an inlet line connected to said engine, microprocessor means for controlling the speed of said engine, the improvement comprising:

a closed chamber configured as a single dead end side branch connected to said line and defining a Helmholtz resonator continuously operatively connected to said inlet line via a restricted connection;

means for attenuating noise in a plurality of frequencies by changing the frequency response of said Helmholtz resonator responsive to changes in speed of said engine;

said means for changing the frequency response includes at least one restricted connection which is selectively connected between said chamber and said inlet line.

Claim 9. A refrigeration system having a multi-speed engine with an inlet line connected to said engine, microprocessor means for controlling the speed of said engine, the improvement comprising:

a closed chamber configured as a single dead end side branch connected to said line and defining a Helmholtz resonator continuously operatively connected to said inlet line via a restricted connection;

means for attenuating noise in a plurality of frequencies by changing the frequency response of said Helmholtz resonator responsive to changes in speed of said engine; and

said means for changing the frequency includes a valve having only an open and a closed position.

Any initial inquiry into the propriety of the examiner's prior art rejection requires the determination of the precise scope of the claimed subject matter. *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). Generally, we give the broadest reasonable interpretation to the terms in the claims consistent with the appellants' specification. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). When the terms in the claims are written in a "means-plus-function" format, however, we interpret them as the corresponding structures described in the specification or equivalents thereof consistent with Section 112, sixth paragraph. *In re Donaldson Co.*, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) (*in banc*). This interpretation is appropriate

only if the claimed means-plus-function elements do not include sufficient structural limitations for performing the claimed functions, thus invoking Section 112, paragraph 6. *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1319, 50 USPQ2d 1161, 1167 (Fed. Cir. 1999).

As stated by our reviewing court in *B. Braun Med., Inc., v. Abbott Labs.*, 124 F.3d 1419, 1424, 43 USPQ2d 1896, 1900 (Fed. Cir. 1997):

[S]tructure disclosed in the specification is "corresponding" structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. This duty to link or associate structure to function is the *quid pro quo* for the convenience of employing § 112, 6.

In *Atmel Corp. v. Info. Storage Devices Inc.*, 198 F.3d 1374, 1382, 53 USPQ2d 1225, 1230 (Fed. Cir. 1999), our reviewing court further stated that the particularity requirement of 35 U.S.C. § 112, second paragraph, requires that

the corresponding structures of a means-plus-function limitation . . . [is] disclosed in the written description in such a manner that one skilled in the art will know and understand what structure corresponds to the means limitation. Otherwise, **one does not know what claim means.** Emphasis added.

The structures equivalent to the corresponding structures described in the specification include those which

1) perform substantially the same function in substantially the same way to produce substantially the same result, *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267, 51 USPQ2d 1225, 1229-30 (Fed. Cir. 1990);

2) have insubstantial differences, *Valmount Indus., Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1042-44, 25 USPQ2d 1451, 1453-56 (Fed. Cir. 1993);

3) are structurally equivalent, *In re Bond*, 910 F.2d 831, 833, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990); and

4) a person having ordinary skill in the art would have recognized as interchangeable, *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d at 1316, 50 USPQ2d at 1165.

Here, claims 3, 7 and 9 on appeal recite the following means-plus-function limitations:

means for attenuating noise in a plurality of frequencies by changing the frequency response of said Helmholtz resonator responsive to changes in speed of said engine;

said means for changing the frequency response includes at least one restricted connection which is selectively connected between said chamber and said inlet line.

It is not clear from the record whether "means for attenuating noise . . ." and "said means for changing the frequency response . . ." are referring to the same or different structures. Nor is

it clear from the record whether the above means-plus-function limitations invoke Section 112, paragraph 6, thereby requiring the examiner to interpret them as the corresponding structures described in the specification or equivalents thereof. If these means-plus-function limitations must be interpreted as the corresponding structures described in the specification or equivalents thereof, the examiner and the appellants must indicate what structures in the specification, if any, correspond to the above means-plus-function limitations and what prior art structures, if any, are identical or equivalent to the above means-plus-function limitations. Implicit in this requirement is that both the examiner and the appellants must indicate whether the "corresponding" structures in the specification are described in a manner that would satisfy the definiteness requirement of 35 U.S.C. § 112, second paragraph.

Therefore, pursuant to 37 CFR § 1.196 (d), we order the appellants to file a Supplemental Paper to explain whether or not the claimed means-plus-function limitations invoke Section 112, paragraph 6, and if invoked, specify what the structures in the specification are encompassed by the means-plus-function limitations. The appellants shall specify a portion of the specification relied upon to show the structures corresponding to

the claimed means-plus-function limitations and shall explain why the structures relied upon are considered "corresponding" within the meaning of *B. Braun Med., Inc., supra* and *Atmel Corp., supra*.

The appellants are given a **non-extendable time period** of two (2) months from the mailing date of this order for response thereto. Failure to respond within the given time period will result in the dismissal of the appeal.

Upon receiving the appellants' Supplemental Paper (if submitted), the examiner is to determine whether the claimed means-plus-function limitations invoke Section 112, paragraph 6, and if invoked, what structures, if any, in the specification correspond to the claimed means-plus-function limitations. This evaluation necessarily requires the examiner to determine whether the claim language and the corresponding structures described in the specification are in compliance with the definiteness requirement of 35 U.S.C. 112, second paragraph. In other words, the examiner must ascertain the correctness of the appellants' response to our order pursuant to 37 CFR § 1.192(d) (2002).

Once the claim scope is properly defined, the examiner must reevaluate the content of the applied prior art and determine whether it still anticipates the claimed subject matter within the meaning of 35 U.S.C. § 102. The examiner must determine

Appeal No. 2004-0950  
Application 10/051,003

whether the prior art structures are identical or "equivalent" to the corresponding structures described in the specification. The examiner is authorized to submit a Supplemental Examiner's Answer containing the above analyses if such analyses do not constitute a new ground of rejection.

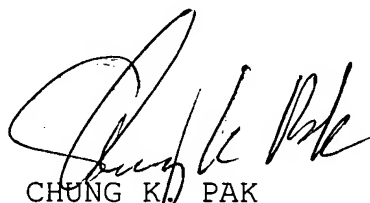
If the examiner determines that such analyses change the thrust of the examiner's Section 102 rejection and/or determine that the claims are indefinite and/or obvious under different statutory grounds, the examiner must reopen the prosecution of this application to include such new grounds of rejection so that appellants are given an opportunity to respond to such new rejections.



Appeal No. 2004-0550  
Application No. 10/051,003

This application, by virtue of its "special" status, requires an immediate action on the part of the examiner. See *Manual of Patent Examining Procedure (MPEP)* § 708.01 (8th ed., Aug. 2001). It is important that the examiner promptly inform the Board of any action affecting the appeal in this case (e.g., abandonment, issue, reopening prosecution).

REMANDED UNDER 37 CFR § 1.196(a)/ORDERED UNDER § 1.196(d)

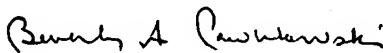


CHUNG K. PAK )  
Administrative Patent Judge )



JEFFREY T. SMITH )  
Administrative Patent Judge )

BOARD OF PATENT  
APPEALS AND  
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BEVERLY A. PAWLIKOWSKI )  
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CKP:svt

Appeal No. 2004-0950  
Application10/051,003

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